Canada. Dept. of Defence Production.
Report.

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ANNUAL REPORT

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FOURTEENTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1964

Hon. C. M. DRURY, P.C., C.B.E., D.S.O., Q.C., M.P., *Minister*

G. W. HUNTER, *Deputy Minister*

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To His Excellency General The Right Honourable Georges P. Vanier, DSO, MC, CD, Governor-General and Commander-in-Chief of Canada.

MARCH 31, 1965

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1964.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

Minister of Defence Production.

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MARCH 31, 1965

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1964.

Yours faithfully,

Deputy Minister.

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Responsibilities and Organization

The Department of Defence Production was established on April 1, 1951, under the provisions of the Defence Production Act. It has exclusive authority for the procurement of the goods and services required by the Department of National Defence. In addition the Department has the responsibility for ensuring that necessary production capacity and materials are available to support the defence production program.

Further responsibilities of the Department are defence development and production sharing with the United States, defence production export activities with the North Atlantic Treaty Organization (NATO) and other friendly countries as well as co-operation in armament programs within the NATO alliance.

The Department is also responsible for the purchase in Canada of goods required by foreign governments under the Colombo Plan and other international agreements.

During the year further implementation of the recommendations of the Royal Commission on Government Organization was made by the Department, resulting in a significant shift in internal responsibilities and consequent re-alignment of the organizational structure.

An organization plan for the future Department of Supply was prepared during the year in accordance with the recommendation of the Royal Commission. The plan called for the integration of the purchasing organization of Defence Production with the supply functions of warehousing and distribution, specifications and standards, quality assurance, cataloguing and traffic management.

Four branches of the integrated supply service were formed: Regional Purchasing, Warehousing and Distribution, Traffic Management and Cataloguing. The Quality Assurance and Specifications and Standards Branches will be fully established in 1965. These branches, along with Crown Assets Disposal Corporation, will comprise the Canadian Government Supply Service.

Operational Branches

A major change in organization saw the responsibilities of the former General Purchasing Branch divided amongst several branches: Machinery, Mechanical Transport, Clothing and Textiles, Electrical and Electronics, Wood Products, Food Products, Chemicals and Materials.

The establishment of the new Regional Purchasing Branch as a component of the Canadian Government Supply Service emphasized the increasing importance of the Department's field purchasing activities. Regional Purchasing operates 14 buying offices across Canada, and offices in Washington, London, Paris and Koolenz.

The assumption of additional functions resulted in the names of two branches being changed: Shipbuilding became Shipbuilding and Heavy Equipment and

Electronics Branch was re-named the Electrical and Electronics Branch. The Armament Branch and Machine Tool Branch were dissolved and most of their functions combined in the new Machinery Branch.

The Department now has 10 operational branches:

Aircraft
Chemicals
Clothing and Textiles
Electrical and Electronics
Food Products
Machinery
Materials
Mechanical Transport
Shipbuilding and Heavy Equipment
Wood Products

International Programs Branch is responsible for planning, processing and coordinating activity within the Department in the defence export field, including the Canada-United States Defence Production sharing program. The Branch also directs activities associated with NATO research, development and production programs and overseas defence exports.

Advisory and Service Branches

Changes in the branch structure in this category included the re-naming of the former Administration Branch as the Personnel Branch, a description more in line with its function. A new General Services Branch was formed from three former branches, Secretary's, Economics and Statistics and Industrial Security. A Management Services Branch was created to provide management consulting service to the Department.

There are now seven branches providing service or advisory facilities:

Comptroller's
Financial Adviser's
General Services
Legal
Management Control
Management Services
Personnel

Emergency Planning

Continued planning for a War Supplies Agency which would exercise control over the Canadian economy in the event of a nuclear war is the responsibility of the Emergency Supply Planning Branch.

Crown Companies

Further to the recommendations of the Royal Commission on Government Organization, the operations of the Canadian Commercial Corporation were integrated with the Department.

In addition to the Canadian Commercial Corporation, the following Crown companies report to Parliament through the Minister of Defence Production:

Canadian Arsenals Limited
Crown Assets Disposal Corporation
Defence Construction (1951) Limited
Polymer Corporation Limited.

Each of these organizations accounts for its activities through its own annual report.

Canadian Government Printing Bureau

In March 1964, the Canadian Government Printing Bureau was formed to be responsible for the printing functions of the former Department of Public Printing and Stationery. The responsibility for publications now rests with the Queen's Printer. The General Manager of the Printing Bureau reports to the Minister of Defence Production and the Bureau issues its own annual report.

N.B.: An organization chart of the Department as of December 31, 1964 appears as Appendix "A". At that time the personnel strength was 2,103.

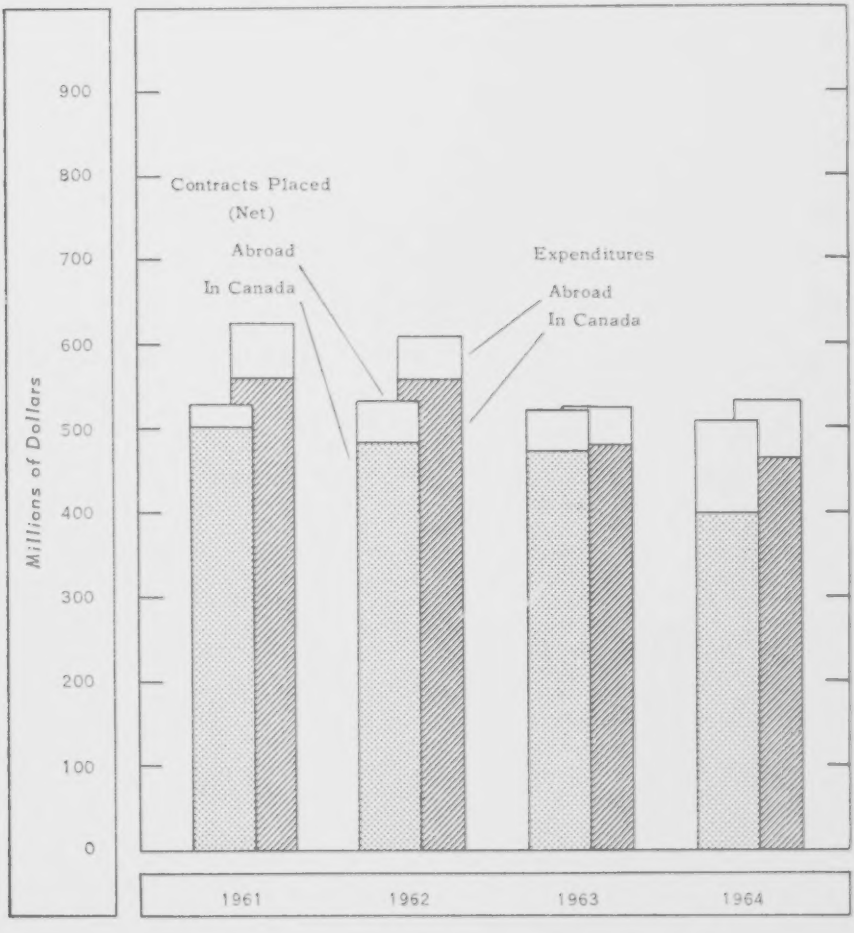
Production and Procurement

Defence Contracting—1964

Contracts having a total net value of $668.0 million were issued in 1964, a decrease of 2.1 per cent from the total of $682.0 million in the previous year. The net value of contracts is the total of new contracts issued as well as amendments of purchases that increased or decreased the value of existing contracts.

The largest group of contracts, having a net value of $507.2 million, was issued for the Department of National Defence. This is 2.9 per cent less than the value of such Canadian Government defence contracts issued in 1963.

Contracts Placed on Behalf of the Department of National Defence and Related Expenditures



Foreign government defence prime contracts placed in Canada through Canadian Government agencies totalled $102.4 million last year, of which $84.6 million was for the United States, $5.6 million for Australia, $3.4 million for Norway, $3.8 million for Germany, and $2.0 million for Britain. The corresponding value of government prime contracts of other nations placed in Canada in the previous year was $135.2 million.

Contracts issued against this Department's Votes to assist Canadian defence industry had a net value of $9.6 million in 1964, compared with $11.3 million in the preceding year.

In addition to the above groups of contracts, a total of $13.1 million was issued for Canadian external aid and $35.8 for other Government departments and agencies.

These figures, and those contained in Appendix F of this Report, relate only to prime contracts awarded by the Department of Defence Production and its associated Crown companies, Canadian Commercial Corporation and Defence Construction (1951) Limited. They do not include prime contracts placed directly with Canadian contractors by foreign governments and subcontracts placed in Canada by United States and other foreign defence contractors. Further reference to these direct prime contracts and subcontracts, which are reported to the Department by Canadian companies, is contained in the sections of this Report covering the defence production sharing program and overseas defence exports.

Aircraft Branch

In 1964 the Aircraft Branch let contracts totalling an actual expenditure of $183.3 million, similar in total to the 1963 actual expenditure. The net value of these contracts, $117.3 million, was placed to satisfy demands for aircraft, aircraft equipment and related services for Canadian defence requirements. Exports of defence materials to foreign governments resulted in the placement of contracts valued at $48.7 million.

Two hundred and sixty-seven contracts of a net value of $63 million were let for the repair and overhaul of Canadian Armed Forces aircraft. The downward trend reflected by this figure was partially offset by an increased activity under the Canada-U.S. Production Sharing Agreement resulting in 11 U.S. Government contracts valued at $4 million.

Twenty-two million three hundred thousand dollars were committed to assist Canadian industry with development, preproduction engineering and the qualification of new products.

In the fixed wing aircraft field, production of the CT 114 Tutor primary trainer was maintained and 68 of these aircraft were produced. Delivery of the last CF-104 Super Starfighter was made to the RCAF in 1964, as was a further delivery of five CF 104D trainer aircraft. During the year, production of the F 104G aircraft for the Canada-U.S. Mutual Aid Program reached its peak of six aircraft per month, enabling 71 aircraft to be delivered.

Six of the 20 CHSS-2 (Sikorsky) helicopters being assembled in Canada for the Royal Canadian Navy were delivered on schedule. During the last quarter

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of the year six CH113A (Vertol) helicopters were delivered to the Canadian Army while the order for CH113 (Vertol) helicopters for the Royal Canadian Air Force was completed in September.

Sixteen J 79 turbo-jet engines for the CF 104 and CF 104D aircraft were produced to complete the Royal Canadian Air Force requirement. In addition, 75 engines were produced for the F 104G MAP program. A total of 167 J-85 turbo-jet engines, power plant for the CT 114 trainer aircraft, were produced during 1964. The delivery schedule of the T 58 turbo-shaft engine for the Canadian Armed Forces helicopter program was maintained. Additional orders for 24 engines were placed.

Foreign government orders accounted for the production of 63 Caribou I aircraft. Thirty-four were delivered to the U.S. Army, 11 to the Government of India and 18 to the Government of Australia, which increased its order from 18 to 25 aircraft.

Flight testing of the Buffalo aircraft, being developed under cost-sharing arrangements between the U.S. Army, the Canadian contractor and this Department, commenced in April. Development of the CL 84 STOL/VTOL aircraft progressed satisfactorily with the roll-out of the first prototype taking place in December. First flight will take place in the spring of 1965.

Progress in the joint Canadian-British government development and evaluation of the CL 89 Surveillance Drone is giving satisfactory evidence that the system is capable of meeting design requirements.

The technical development of the PHE 400 Hydrofoil for the Royal Canadian Navy progressed satisfactorily during 1964.

Chemicals Branch

The procurement segment of Chemicals Branch which became operational March 1, 1964, issued 3,046 contractual documents up to the end of 1964. These had a value of $42.5 million and involved mainly procurement of petroleum products, heating fuels, pharmaceuticals, dental supplies, photographic stores, cleaning materials, paints and related coatings, rubber and plastic products, research and development services and chemical warfare items.

The Branch actively participated in the Canada-United States Production and Development Sharing Programs. External Aid Procurement was undertaken for Pakistan and Ghana involving such items as paints and related products, plastic structures and sulphur. Under the UNICEF Program contracts were arranged for medical supplies.

Activities related to the Canadian Government Supply Service consisted of two formal agreements for the leasing of Crown-owned facilities at Fort Churchill, Manitoba, for the storage of petroleum products and liquefied petroleum gas. A formal agreement was also executed for the conversion of boilers and installation of handling facilities for liquefied petroleum gas there. Contracts valued at $1.8 million were placed for petroleum products and liquefied petroleum gas required at Fort Churchill and the Northwest Highway System.

Clothing and Textiles Branch

The Clothing and Textiles Branch began operations in February 1964. In the 11-month period it placed 1,035 contracts for a total value of $13,382,243 on behalf of the Department of National Defence. The items purchased included inner and outer clothing, fabrics, canvas goods, bedding, flags and towels.

The branch was also responsible for the procurement of the new Canadian flag for all Government departments.

Plans for the introduction of phased delivery contracts for clothing and footwear were completed and introduced to the applicable industries at meetings held with the trade in Ottawa, Montreal and Toronto. With this innovation, contracts will be let on an annual basis with delivery effected during each quarter, based on the quarterly quantity and size required by National Defence establishments. This will have the dual effect of permitting a considerable reduction in National Defence inventories concurrent with reduced administrative costs incurred by both DDP and DND while providing the advantage of volume purchasing; and will enable the contractors to plan production more effectively and confidently. In the administration of phased delivery contracts, consideration is being given to the seasonal nature of some of the industries concerned.

Pilot studies were carried out in respect to a Contract Schedule Control System. This system, based on critical path analyses of Branch contractual procedure, is designed initially to identify problems and delay factors inherent in the flow of activity between the receipt of a contract demand and the award of the contract. This will assist materially in the development of new and improved methods of contract administration and Branch procedure as well as in the provision of improved service to requisitioning departments.

Electrical and Electronics Branch

In 1964, the Electronics Branch was redesignated the Electrical and Electronics Branch and assimilated additional responsibility, for the procurement of electrical equipment and components for Department of National Defence requirements, production sharing and External Aid Office projects, and for civilian procurement related to the Canadian Government Supply Service.

Canadian Defence requirements in 1964 resulted in the placement by the Branch of contracts having a net value of $96.1 million, an increase of approximately $4 million over the corresponding 1963 figure.

Contracts placed by the Branch for the defence requirements of other governments during 1964 had a net value of $37.3 million.

In respect of actual expenditures, Canadian industry received $107.4 million against defence contracts for Canada, an increase of $16.8 million above the 1963 figure and $42.5 million for other governments.

During the past year, various Canadian manufacturers have continued development and production of radar and counter-measures equipment. This work is being conducted for the Canadian Services and also for possible sales to NATO allies. Further refinements were made in the design of a vehicular navigation system, which will allow a completely closed-in tank to navigate from inside instruments.

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Contractual action has been taken covering a research and development program in the civil application of Ionospheric Sounding as applied to Automatic High Frequency Communication systems and another development program covers a hand-held Ultra High Frequency Transceiver. Both of these are being undertaken in conjunction with the U.S.

A contract has been issued for the RCN Hydrofoil vessel's fighting equipment. This is an integrated package to provide all the necessary electronic controls for operation of the ship in its anti-submarine warfare role.

Sonar and Sonobuoy development and production has continued during the year, both for Department of National Defence requirements and allied countries.

CF-104 electronics deliveries were completed on nearly all systems. The major activities involved product improvement to the NASARR radar sets.

Deliveries of six operational flight and tactics trainers for the RCAF on the CF-104 Flight Simulator program were completed on schedule and 26 similar trainers were delivered to NATO countries.

Work proceeded on schedule on the Alouette/ISIS Satellite program and the gradual transfer of the activity from the Defence Research Board to industry is proceeding as planned.

Contracts were awarded for a number of new systems required to increase the Anti-submarine detection capability of the CS-2F Tracker aircraft for the Navy.

The electronic requirements for the RCN CHSS-2 helicopter were contracted for during the year and deliveries have been made on time.

Contracts were awarded for the development and production of advanced airborne navigation systems. Development of the airborne Crash Position Indicator/Accident Data Recorder, using the tumbling aerofoil principle, has been largely completed.

Requirements for Canadian-manufactured Doppler navigation equipment continued at a high level.

During the first three months of 1964, the Western portion of the Mid-Canada Line was closed down, with the phase-out completed by March 31, 1964. The effect was to eliminate approximately 50% of the work force on the line.

During the year, a major reconfiguration program in connection with the ADCOM system was commenced, caused by the closing down of a number of the Pinetree Radar Sites. This program is now well under way and should be completed by mid-1965.

Food Products Branch

The Food Products Branch was formed in March, 1964 with the transfer of personnel from the General Purchasing Branch.

The principal role of this branch is the procurement of non-perishable food items and contractual arrangements of food service. During 1964, 534 contractual documents were issued amounting to $7.9 million.

Under the auspices of the World Food Program, with headquarters in Rome, Italy, milk, cheese, butter, butter oil, flour and oats were procured for the following nations: Bolivia, Senegal, British Guiana, Jamaica, Turkey, Syria, The

Republic of China, Jordan, Ceylon and Honduras. Flour was acquired for Egypt and Lebanon under the auspices of the United Nations Relief Works Administration.

In conjunction with the Department of National Defence, a research project has been undertaken in an attempt to effect economies, establish quality control in certain areas and explore the feasibility of introducing standing offer agreements.

Machinery Branch

This Branch was formed in May, 1964, by amalgamation of the Armament Branch, Machine Tool Branch and two sections of the former General Purchasing Branch.

During the year contracting for armament equipment for Canadian defence requirements amounted to $28 million. Contracts for general supplies for Canadian defence requirements amounted to a further $10 million.

Of the $28 million in orders placed for armament items, contracts with Canadian industry amounted to $21.5 million. Orders for a further $7.5 million were received by Canadian firms for U.S. armament requirements such as propellants, fuzes and small arms ammunition. Canadian armament purchases from foreign countries amounted to $6.5 million.

The major items of Canadian armament production for defence requirements included torpedoes, anti-submarine projectiles and devices, aircraft bombs, anti-tank and small arms ammunition, rocket launchers and pyrotechnic stores.

Efforts towards procurement cooperation with European countries was extended. Joint production of mutual requirements for a light anti-tank rocket and launcher was begun with Norway. Branch participation in NATO Working Groups was increased.

External aid procurement was undertaken for Pakistan, India and Malaysia involving pulping equipment, hydraulic presses, piping, instrumentation and control equipment, transmission towers and heating.

Materials Branch

The Materials Branch began operations in April, 1964. It is responsible for the procurement of ferrous and non-ferrous metals and industrial minerals in primary, semi-fabricated and fabricated forms. It also bears the responsibility for the Government's residual Strategic Materials Stockpile and the assignment of Canada-United States Defense Priorities.

In the nine-month period of its operations in 1964, the branch issued 577 contractual commitments valued at $1,660,239. Items such as structural steel, reinforcing rods, nuts, bolts and glass were procured for India and Pakistan through the External Aid Program.

Canada's defence and related programs were still dependent, to some extent, on allocations under the United States Defense Materials system for supply of certain metallic and non-metallic materials. This year an increased number of Canadian defence and Atomic Energy contractors again found it advisable to take full advantage of the priority allocations and special assistance was provided to Canadian defence contractors under the United States Defense Production Act.

Canada's major defence programs were again included in the United States Master Urgency List, thus ensuring an equal supply of the strategic and critical materials to meet production schedules.

Mechanical Transport Branch

During the year initial steps were taken towards the centralized procurement of all government vehicles and purchases were made on behalf of the Department of Public Works, the Department of Public Printing and Stationery, Canadian Arsenals Ltd., and the Unemployment Insurance Commission.

The activity of the Branch was in the main, however, centred around the procurement of vehicular equipment required by the Department of National Defence. In addition to purchasing the ordinary types of commercial vehicles, contracts were placed for crash trucks, fire engines, aircraft refuellers, refrigerated vans, tankers, tracked vehicles and various other items of a mobile nature needed by the Armed Forces for transportation, construction and material handling purposes.

Activities relating to international programs were intensified, including vehicles under development as joint defence Canada-United States sharing projects. The Branch represented the Department at NATO meetings concerning vehicles and associated equipment, and supported Department efforts to increase defence equipment sales abroad. A concerted effort to assist industry to participate in the Canada-U.S. Production Sharing Program resulted in briefing sessions being given in the larger industrial complexes throughout Canada.

Development programs were established on behalf of the U.S. Department of Defense (USAF) and a major program established for the study of snow and ice removal.

As part of its non-military activities, the Branch undertook the procurement of special railway coaches and truck-trailer units for the Centennial Commission.

Shipbuilding and Heavy Equipment Branch

During 1964, the level of Shipbuilding and Heavy Equipment Branch activity in respect of specific requirements remained at approximately the same level as 1963. However, the Branch assumed additional responsibility for the procurement of heavy equipment for the Department of National Defence and External Aid Office.

The principal specific requirements handled during 1964 were the completion of the last two destroyer escorts of the six-ship Repeat Restigouche program; the construction of the Pacific Naval Laboratory vessel scheduled for completion this spring, and the completion of a deperming barge.

Construction continued on schedule in the U.K. on three "OBERON" Class Submarines for the RCN. The first vessel, HMCS "OJIBWA", was launched in February 1964 and will be completed late in 1965. The second and third vessels are scheduled for completion mid-1967 and mid-1968.

Conversion and modernization of four St. Laurent Class Destroyer Escorts were completed and similar work undertaken on two additional vessels for com-

pletion in 1965. Nation-wide "firm price" tenders were called in December 1964 for conversion of the last ship of this class, HMCS "FRASER". Conversion of these vessels includes equipping them with variable depth sonar, helicopter landing decks and modernization of communications and armament.

Fleet Maintenance during 1964 placed 81 contracts valued at over $7,000,000, covering the repair, refit and degaussing of vessels.

Contracts were awarded for ship components, small boats and related stores. A major area of procurement was the equipment for the conversion and modernization program for Destroyer Escorts. Included in this field was the production of a unique Canadian-designed helicopter hauldown system and equipment for replenishment at sea.

During the year contracts amounting to approximately $1,000,000 were placed in the Canada-United States Defence Production Sharing area by the Branch. These covered such items as torpedo tubes, catapult rams, propellers and marine valves.

Wood Products Branch

In May 1964 the Paper and Wood Division was formed. It took over the responsibility for the procurement of a diversified range of goods usually available from the open competitive market, and previously the responsibility of the General Purchasing Branch. The items involved consist of paper and paper products such as toiletries, containers, packaging and barrier materials; furniture for household, schools, offices and ships; gymnasium and recreational equipment and miscellaneous items basically of wooden or paper construction.

During the year, lumber, pulp, newsprint, school furniture, medical and educational films and technical books were purchased under the Colombo Plan for delivery to Pakistan and Tanganyika.

During the period May 1st to December 31, 1964, the division issued 1,466 contractual documents valued at $4,712,707.

During October 1964 the purchase function formerly performed by the Department of Public Printing and Stationery was transferred to the Wood Products Branch. The purchase of fine paper and envelopes was placed with the Paper and Wood Division. The procurement of office equipment and printing equipment was transferred to the Machinery Branch.

The Printing and Stationery Division was set up in the Branch to carry out the purchase function for all government departments for stationery, printing, printing supplies and office supplies. Purchases in 1964 for the Division amounted to $18,395,140.

International Programs Branch

The International Programs Branch, established in 1964, has integrated the activities of the Canadian Commercial Corporation with those of the United States and Overseas Divisions of the Department in line with a recommendation of the Royal Commission on Government Organization. The Corporation has, however, retained its corporate identity.

The International Programs Branch's functions include: coordination of the Department's interests in international programs for cooperation in defence industrial research, development and production, management of the Canadian Commercial Corporation activities, guidance of the Canada-U.S. Defence Production Sharing Program and other elements of the Department's bilateral and multilateral defence activities, and managing External Aid supply activities.

The branch has an office in Washington to maintain liaison with various U.S. Government Agencies. Seven offices are located in major cities of the United States. Officers of the branch are stationed as attachés at the Canadian embassies in Paris, and at Bonn in the Federal Republic of Germany, and at the High Commissioner's Office in London. They assist Canadian industry to participate in European defence requirements. In addition, two officers serve on the Canadian Delegation to the North Atlantic Council in Paris.

Canadian Commercial Corporation

During 1964 the total dollar value of business received from the United States and other governments, international agencies, and departments of the Government of Canada amounted to $126.3 million. This represents a decrease of some $20 million from that received in 1963 from the same sources. This decrease resulted mainly from the substantial reduction in U.S. and other government purchases of Caribou aircraft. There was also a decrease in the volume of purchases made on behalf of the External Aid Program. While the dollar volume of business done by the Canadian Commercial Corporation decreased in 1964, the number of enquiries and bids processed was considerably greater than in 1963.

Programs for Maintaining the Defence Industrial Base

Programs aimed at maintaining the defence industrial base in Canada include:

i) a defence industrial development program
ii) a defence industrial modernization program
iii) a strategic components sourcing program.

The development program was established in 1959, to sustain the technological capability of the Canadian defence industry. The program supports the development of defence equipment aimed at meeting the military requirements of the U.S. and other allied governments on a cost-shared basis. From the inception of the program to the end of 1964, a total of eighty-eight defence development projects have been approved or recommended for support, resulting in a significant

increase in the employment of technical and skilled personnel in the Canadian defence industry. Current projects include airborne surveillance navigation systems, short take-off and landing (V/STOL) aircraft, gas turbine stationary engines, submarine detection equipment, off-road vehicles, light-weight missile launchers, communications equipment, and upper-atmospheric research vehicles. During 1964, $20 million was spent in support of these projects.

An important adjunct to the development program continues to be the government-industry cost-shared Defence Industrial Research Program managed by the Defence Research Board in coordination with the Department of Defence Production.

The defence industrial modernization program was established during 1964 to provide assistance in the modernization of Canadian Defence Industry to ensure its ability to participate in the domestic and foreign defence export market. During the year eleven projects were approved with a value of $614,000.

The strategic components sourcing program ensures that, wherever possible, Department of National Defence requirements for component parts and materials are met in Canada. Results from this program have a supplementary benefit to industries supplying DND requirements when the same industries are supplying other government's defence requirements. Expenditures in this program during 1964 amounted to $405,000. Increased DND equipment requirements over the next five years will benefit from this program.

Canada-United States Defence Production Sharing

The Canada-United States Defence Production Sharing Program continued to show gains resulting from strengthened government-to-government and government-to-industry relationships, better procedures, and added emphasis on research and development.

In terms of contracts placed, U.S. Defence Production Sharing business in Canada during 1964 totalled $166.8 million, a 17% increase over 1963. Total U.S. business in Canada during the 6 years of the program reached $914.7 million. Comparable figures for Canadian business in the U.S. for 1964 were $173.3 million with a 6-year total of $851.5 million. Thus, the cumulative 6-year cross-border balance of production sharing business between Canada and the United States was $63.2 million in Canada's favour at the end of 1964, down $6.5 million from the $69.7 million balance at the end of 1963.

The level of defence production sharing activity between Canada and the United States is measured on the basis of definitions and statistical techniques approved by both countries. Contracts included in the production sharing category are applied research and development, pre-production, production, licence agreement and technical assistance, installation (other than construction), and repair, overhaul and modification. Contracts for "off-the-shelf" general procurement, construction, basic raw materials, fuels and lubricants, or services are not included. Thus, it is not practical to compare figures measuring the Defence Production Sharing Program, which include sub-contracts as well as prime contracts, with

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data in other sections of this Report which relate to the prime contracting and CCC business for which the Department is also responsible.

Government-to-government relationships were strengthened through meetings which included the Canada-U.S. Ministerial Committee on Joint Defence, the Production Sharing Steering Committee, the United States Secretary of Defense meeting with the Minister of Defence Production, and meetings of various Working Groups involved with particular problem areas. These meetings were in addition to the normal day-to-day liaison with U.S. Government authorities by the Department's Washington office and Field Liaison Officers.

Close liaison was maintained with other Canadian Government departments, particularly National Defence, External Affairs, Finance, and Trade and Commerce in matters relating to the production sharing program.

Relations with Canadian industry were strengthened as a result of closer contact by the production branches of the Department. Information was provided to industry on a wide range of opportunities in both the prime and sub-contract area, and procedural matters were refined to ensure faster reaction to bid solicitations.

An enlarged and revised third edition of the "Production Sharing Handbook" was published during the year and given wide distribution in the United States and Canada.

Development Cooperation Program

The development program sponsored by the Department is aimed at stimulating development activity in Canadian defence industry by enabling it to undertake research and development work aimed at meeting the requirements of the United States or other Allied Armed Forces. Financing of the program is carried out on a cost-shared basis between the Department, Canadian industry, and the U.S. and other allied governments. Total new commitment from all sources in 1964 augmented the level of the program by $53 million. This is a significant increase over 1963 for which the comparable figure is $24 million, and is particularly noteworthy since research and development is the forerunner of eventual production.

Overseas Defence Exports

The concept of national self-sufficiency in the design, development and production of costly and complex military equipment is rapidy giving way to the necessity for economic and industrial interdependence and scientific cooperation. Accordingly, the Department intensified its effort during 1964 to establish bilateral arrangements with its NATO partners and other allied countries for closer cooperation in the fields of research, development and production of military equipment.

The Anglo-Canadian Committee on Research Development and Production, established in 1963 for mutual examination of defence requirements, met in London during 1964. Resulting from this meeting, a number of potential requirements for such Canadian defence products as vehicle navigation sets, anti-

personnel mines, underwater sound equipment, etc., were identified. Other encouraging areas leading to possible joint development and future production of specialized Canadian products are being actively pursued by departmental project officers and the Department's officers in London.

Arising from exploratory discussions in 1963, a departmental team visited The Federal Republic of Germany during 1964 to explore areas of possible co-operation in the fields of research, development and production. As a result of these meetings, an understanding was reached with the German Ministry of Defence to work with the Department toward the establishment of joint development programs in areas where the defence industrial capabilities of the two countries could be coordinated in defence projects of common interest. The Federal Republic of Germany is now examining and evaluating a number of Canadian developments for possible introduction into the German armed forces.

During 1964 departmental teams visited Belgium, France, the Netherlands, Sweden, Norway and Denmark to develop further opportunities for closer collaboration in cooperative research, development, and production of military equipment.

The English edition of a publication entitled "Canadian Defence Products" was distributed in 1964 through Trade Commissions and Departmental officers abroad to military and procurement authorities of NATO and other friendly countries. This publication is aimed at assisting foreign governments and their defence industries in identifying defence products and services available in Canada. French and German editions of the publication will be ready for distribution in 1965. Another publication to be known as "Canadian Research and Development Facilities" is being prepared and will be distributed in 1965.

Total overseas defence export business in 1964 amounted to nearly $60 million. This is an increase of $7 million over 1963. Seventy-seven Canadian firms participated in this business exporting to 40 foreign countries (excluding United States).

NATO Research Development, Production and Infrastructure

In 1964 Canadian representatives continued to participate in a wide range of NATO technical committees and programs with the object of fostering increased cooperation in defence research, development and production (RDP). Canadian representation is coordinated by the Department. Canada has taken a prominent role in initiating NATO cooperative projects and developing the philosophy of NATO basic agreements which can provide the framework for cooperative RDP projects. Effective collaboration among NATO Countries continues to form the basis of Canadian defence production planning for overseas cooperation. Current NATO cooperative projects in which Canada is a participant include the M72 Light Anti-Tank Weapon and Mobile Hostile Weapon Locating Radar. The CL-89 Surveillance Drone currently being developed jointly by Canada and Britain has been offered to NATO as a cooperative RDP project. NATO has recently been informed of Canada's interest in participating with the United States and Germany in the joint development of the Main Battle Tank.

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Infrastructure

Canada is actively participating in the plan for the air defence of NATO Europe (NADGE). This is the largest NATO infrastructure project yet attempted and the most complex. The NATO Council has agreed that Canadian firms should participate up to the equivalent of the Canadian contribution, or some $17 million. A meeting of all interested firms from NATO countries has been arranged to take place early in 1965.

Canadian firms have been encouraged to participate more actively in other NATO Common Infrastructure programs. To facilitate these efforts, Canada obtained an amendment to the competitive bidding regulations allowing a two weeks extension of time for the submission of bids.

The Canadian Government Supply Service

A Government decision, taken on September 4, 1963, directed that the recommendations of the Royal Commission on Government Organization relating to the formation of a central purchasing and supply agency be implemented. The responsibility for carrying out this decision was assigned to the Department of Defence Production.

A plan of organization for a future Department of Supply was prepared by the Department. This plan required the integration of the purchasing organization of Defence Production with the supply functions of warehousing and distribution, specifications and standards, quality assurance, traffic management and cataloguing. In the plan of organization these functions were grouped with the regional purchasing function of Defence Production and Crown Assets Disposal Corporation to form a Canadian Government Supply Service.

In accordance with the Government directive, Defence Production has established a central purchasing agency to serve all departments and agencies. The first stage of implementation, that of transferring to the Department the procurement and maintenance responsibility, hitherto undertaken by the Department of Public Printing and Stationery, with respect to office machinery and stationery, has been completed.

Four branches of the integrated supply service were formed during the year:

(a) **The Regional Purchasing Branch** was established on January 15th, 1964, to provide an overall regional purchasing service for the Navy, Army, RCAF and the Defence Research Board. The new Branch, therefore, continued the regional purchasing function of the 14 Canadian district offices of the General Purchasing Branch. On April 1st, it assumed the local procurement responsibilities formerly discharged by the London, England; Paris, France; Koblenz, Germany; Washington, D.C., and Dayton, Ohio, offices. During the year Canadian methods, procedures and equipment were introduced into the London, Paris and Koblenz Offices.

Prior to the formal constitution of the Clothing and Textiles Branch, Chemicals Branch, Food Products Branch, Machinery Branch, Materials Branch, and the Mechanical Transport Branch on April 1st, 1964, the Regional Purchasing Branch was responsible for the remaining activities of the General Purchasing Branch.

In 1964, the Regional Purchasing Branch issued 112,073 contractual documents valued at $159,341,000. Of these, 2,649 valued at $29,372,000 were issued by Headquarters elements during the months of January, February and March. The 14 regional offices located across Canada processed 103,572 contractual documents having a total value of $54,969,000 for goods and services required to support the daily activity of regional defence establishments.

For their part, overseas offices of the Branch in Britain, France and The Federal Republic of Germany issued departmental contracts valued at $9.5 million, while the United States Office, located in Washington, issued contracts amounting to $65.5 million to handle all procurement from the United States Armed Services.

During 1964, specific purchasing responsibilities were assigned to the regional offices in Ontario, Quebec, Manitoba and Alberta, on behalf of the Departments of Citizenship and Immigration; National Health and Welfare; Public Works and the Canadian Corporation for the 1967 World Exhibition.

(b) **The Warehousing and Distribution Branch** was established in August 1964. The Branch assumed responsibility for the national distribution of stationery for all Departments and Agencies on August 17, 1964 as well as providing direct supply support to the Canadian Government Printing Bureau through the operation of paper, printing material, and technical maintenance stores. This constituted the major supply assignment undertaken by the Branch and the activity is under close surveillance within the newly formed No. 1 Supply Centre, Capital Region.

(c) **The Cataloguing Branch,** formed April 1, 1964, operates in conjunction with the cataloguing personnel in the Department of National Defence as the NATO military cataloguing structure is being used by the Supply Service. It is intended that the military and civil cataloguing systems be integrated as completely as possible.

(d) **The Traffic Management Branch** formed in April, 1964, undertook the analysis of the freight content of purchases. Arrangements were completed for an agreed charge contract between the Federal Government and the Canadian Railways covering the movement of coal in Western Canada which resulted in substantial savings.

The Quality Assurance and Specifications and Standards Branches will be fully established in 1965.

The Regional Supply Centre. The Government directive further instructed the Department to develop a system of consolidated warehousing and test it in a pilot operation. A study to help determine the basis of such a pilot operation was carried out by a firm of management consultants in British Columbia. The consultants believed that a pilot operation in an area where there were many federal government users such as Ottawa-Hull would give the best testing results.

A plan has been prepared for establishing the pilot operation in the Ottawa-Hull area. An important feature of the plan is to develop and prove out the policies and procedures for an integrated supply system linking the seven supply functions and to demonstrate that the service and cost objectives can be met before expanding the Canadian Government Supply Service.

In September, 1964 the first supply centre was established, as the No. 1 Supply Centre—Capital Region, in Hull. Here the pilot operation will be developed.

In connection with the development of the Canadian Government Supply Service, a team of analysts worked with the functional branches to develop systems, procedures and forms for the operation of No. 1 Supply Centre. Basic requirements for an effective inventory control were established and test runs were made of available inventory control systems. A determination was made of data processing requirements and procurement action was initiated for the rental of equipment.

Financial policies calling for total recovery of costs from customer departments and agencies, coupled with a self-supporting revolving fund financial structure, were drafted by the Comptroller's Branch. These policies, together with other broad programs for implementation of the C.G.S.S., have been approved in principle by the Treasury Board. Further long-range plans have been formulated for the development of modern concept of financial management, along the lines recommended by the Royal Commission on Government Organization.

Advisory and Services Branches

Comptroller's Branch

The Comptroller's Branch provided complete accounting service for the Department of Defence Production, Department of Industry, and the Canadian Commercial Corporation, as well as commitment and disbursement control on behalf of Emergency Measures Organization, at Civil Defence College, Arnprior. Services on behalf of the Corporation included, as usual, the operation of all bank accounts and special financial and accounting administration as required. Complete bookkeeping records, based as far as possible on commercial practice, were kept of the transactions against the Parliamentary appropriations of Department of Defence Production and Department of Industry, and of all the assets and liabilities for which responsibility lies with the Minister.

During 1964 the volume of accounting of both the Department and of the Corporation continued to increase with respect to various Revolving Fund projects, assistance to Canadian industry, development of technological capabilities, Canada-United States Production Sharing and other trade expansion activities.

A new Division was organized to plan and develop financial management and accounting procedures for the Canadian Government Supply Service.

The financial position of the Department as at March 31, 1964, is shown in the Balance Sheet and related schedules given in Appendix G, duly certified and reported upon by the Auditor General.

Financial Adviser's Branch

The Financial Adviser's Branch continued to advise on the development and application of financial policies including those related to purchase contracts, and to review major contract proposals to ensure the proper application of departmental financial policies. Contract audit reports were reviewed and assistance rendered in resolving cost and profit problems arising from them.

During the year studies were undertaken on achieving additional incentive type contracts and the processing of identical bids. The Branch also participated in reviews covering the financial aspects of programs relating to the modernization of the defence industry, Defence Industrial Research assistance and Canadian Commercial Corporation policies and procedures. It provided information on contractor liability for insurance, taxes and duties and advised on related problems arising from contract negotiations.

Applications for capital assistance and additional capital cost allowances (accelerated depreciation) were reviewed in the light of departmental policy. Declarations of surplus items were screened for approval and the use of Crown equipment on non-Canadian defence work was assessed for rental charges. The Branch administered municipal grants made in lieu of taxes on Crown-owned defence plants operated by private contractors. It also coordinated the estimates for both the Department of Defence Production and the Department of Industry and the appropriations required by associated Crown Companies.

The Branch served in an advisory capacity to the Department of Industry and reviewed the cost and profit positions of follow-on orders resulting from assistance provided under that Department's Development Sharing Program. Applications for income tax exemptions made to the Area Development Agency by industries establishing plants in designated areas were also reviewed.

General Services Branch

The General Services Branch provided administrative services to the Department.

In addition to such normal services as communications, office supplies and stationery, filing, messenger services and central typing facilities, it provided the special services required in support of the Department's purchasing role. These included the maintenance of lists of suppliers, the typing, duplication and distribution of invitations to tender, contracts and other contractual documents and the receipt, custody and opening of tenders.

A rigid time control over all individual activities making up the purchasing function is being established through a new Schedule Control Section.

During the year, the Branch was active in the adjustment and development of procedures required by the assimilation by the Department of purchasing responsibilities for other departments. The Branch participated in the preparation of a new volume of Canadian Defence Products.

The Information Division has been established to look after the informational, educational and promotional activities of the Departments of Defence Production and Industry. The Data Processing Division provides statistical and data processing service to the two Departments. It also provides basic data for industrial development work by researching import documents and identifying products or groups of products which are imported in sufficient volume to warrant manufacture in Canada.

The Industrial Security Division is responsible for the Security and protection of classified contracts, implementation of national and international security requirements and policies as they affect Canadian defence contracts and the inspection and surveillance of certain plants.

During the past year, the more significant purchase documents were made available in both languages. Bilingual purchasing forms are now in use by both our Regional Offices as well as by the Department's Head Office. The Department issues all administrative circulars bilingually.

Legal Branch

The Legal Branch provided all other Branches of the Department and the Deputy Minister's Office with legal services.

The preparation of formal contracts with Canadian industrial firms continued to be one of the principal functions of the Branch. These contracts covered procurement of defence supplies for the Canadian Armed Services, the United States Military Departments (under the Canada-United States Defence Production Sharing Program) and other governments; the procurement of machinery and equip-

ment for use in the production of defence supplies; financial aid to Canadian industry for research and development and for the establishment of productive capacity and qualified sources of supply; the sale of Crown-owned production equipment; leases, settlement agreements, licenses and technical assistance agreements; and other miscellaneous matters.

The Legal Branch also prepared or reviewed formal contracts between the Department and agencies of other governments, including NATO countries, covering the sale to such governments of defence supplies produced by Canadian industry.

An increasing volume of legal services was rendered to the Department of Industry regarding legal aspects of Canadian industry's proposals and representations to that Department.

The transfer of various functions to the Department of Defence Production introduced new legal work for agencies such as the Emergency Measures Organization, the National Design Council and the Canadian Government Printing Bureau. In addition, as the Department undertook purchasing for the Canadian Corporation for the 1967 World Exhibition, it was necessary for the Legal Branch to prepare and advise on the form of a wide variety of contracts and agreements to be used in that activity.

During the performance of contracts the Legal Branch was called upon to give legal interpretations, especially where claims arose by or against the Crown, which might lead to litigation. Advice was given on such matters as assignment of contracts, sub-contracting patents, licenses, proprietary rights, inventions, royalties, title, risk, insurance, tax and land matters and termination of contracts.

The Branch handled all legal work for the Canadian Commercial Corporation and from time to time gave advice regarding certain other Crown agencies which report to the Minister, such as Defence Construction (1951) Limited, Crown Assets Disposal Corporation and Canadian Arsenals Limited.

Management Services

The Management Services Branch carried out a complete survey of the Office Machine Division of Machinery Branch. Pilot units were established to test the proposed Schedule Control and Contract Management Information System. Surveys were also undertaken in Contracts Authorization Division and Comptroller's Branch.

The result of a study of allocation procedures in the Departments of Defence Production and Industry was the assignment to specific branches of responsibility for:

(i) purchasing in accordance with the Federal Supply classification and

(ii) industrial development in accord with the DBS Standard Industrial Classification.

The general phase of an Electronic Data Processing feasibility study was completed and the detailed phase was begun. Requirements for photocopy equipment were surveyed and assistance was provided to several units in regard to record keeping problems.

The Management Analysis Division has assisted in the transfer of purchasing responsibility from the Department of Public Printing & Stationery to the Department of Defence Production, and in planning the integration of other departments' purchasing work.

The Purchase Research Division organized and directed a survey of purchases made by major departments of government. This involved the abstraction and tabulation of information from about 400,000 purchase documents. The purpose was to obtain information on the value and nature of materials and services bought by the Government in order to develop plans and guide-lines for the consolidation of government purchasing and supply.

The Facility Evaluation Division carried out special investigations on technical problems; assessments on research and development potential; clarifications of problems relating to contracting performance and Canadian content; and assisted in locating sources of supply and the selection of companies capable of tendering on U.S. and Canadian sub-contracts. The information collected was made available to all concerned and has been of material assistance in improving departmental source and commodity listings.

Personnel Branch

The reorganization of the Personnel Branch (formerly Administration Branch) placed special stress on recruiting, career planning and appraisal, classification and staff training. The number of employees in the Department of Defence Production rose from 1611 to 2103 (and in the Department of Industry from 85 to 333) during the year.

Transfers of staff took place from the Canadian Commercial Corporation, Canadian Arsenals Limited, Defence Construction (1951) Limited, and the Procurement, Purchasing and Stores Branch of the former Department of Public Printing and Stationery. The first phase of staffing for the Department of Industry was completed with most of the key positions filled. Considerable progress was made both in the classification and recruiting for the Canadian Government Supply Service. Planning started on the major classification conversion program in preparation for the introduction of Collective Bargaining and Arbitration in the public service.

The branch designed and conducted the following courses: Orientation (all levels including newly-appointed Directors); Contract Negotiation; Management Accounting and Management Controls. French-language training was organized for all levels. Seminars and workshops were conducted in management development, functions of related government agencies, purchasing practices, industrial engineering and speechcraft. A study of training needs was conducted for the Canadian Government Printing Bureau and a program designed to meet their special situation was initiated.

Library services were expanded to meet the increasing information demands of the newly-recruited officers.

Emergency Supply Planning Branch

The Emergency Supply Planning Branch made further progress with plans and arrangements to bring the War Supplies Agency into immediate, effective existence in the event of a nuclear war. The Agency would operate at the national, regional, zonal and local levels of government and would assume control of the production, distribution and pricing of supplies for all civilian and military purposes except for certain aspects of the agricultural and fishing industries.

The stand-by staffing of the national and ten regional components was maintained at a satisfactory level during 1964.

Research programs completed during the year included the identification of bulk and retail stocks of food, fuels, and certain essential materials, the mapping of bulk petroleum storage points and studies of the effects of a nuclear attack on selected major industries.

A revised system for the collection and storage of WSA essential records was developed and put into effect at the national and regional levels.

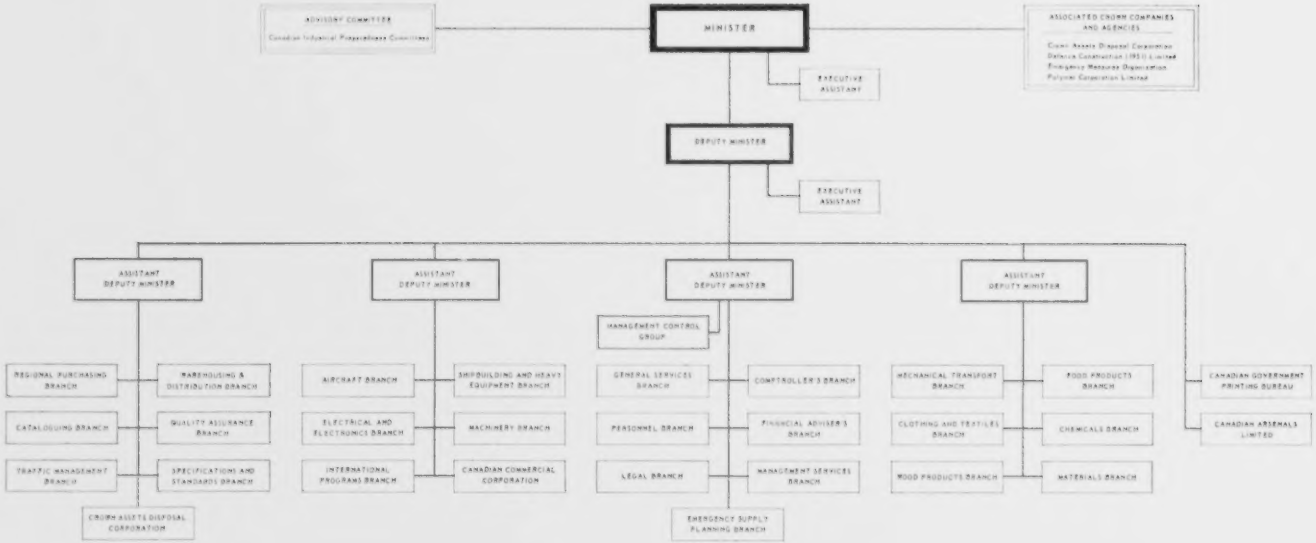
Two pamphlets, "Emergency Organization for Industry" and "Essential Records for Industry" were prepared.

In consultation with the Emergency Measures Organization, liaison was maintained with NATO agencies and regional liaison was established with the United States Department of Agriculture. Considerable work was done by the Branch in the preparation of resource data for various exercises including one sponsored by NATO.

Two training courses were conducted by Branch Headquarters staff at the Canadian Civil Defence College for stand-by staffs of the War Supplies Agency. Branch officers lectured to approximately forty courses sponsored by other departments and agencies in Ottawa.

Appendix A

DEPARTMENT OF DEFENCE PRODUCTION
Organization as at December 31, 1964.



Appendix B

Senior Personnel of the Department

as at December 31, 1964

Minister

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.

Executive Assistant to the Minister	F. M. Wanklyn

Deputy Minister

G. W. Hunter

Assistant Deputy Minister	W. H. Huck
Assistant Deputy Minister	D. B. Mundy
Assistant Deputy Minister	B. G. Barrow
Executive Assistant to the Deputy Minister	W. J. Mulock

Procurement Branches

Director, Aircraft Branch	A. D. Belyea
Director, Electrical and Electronics Branch	J. S. Glassford
Deputy Director, Electrical and Electronics Branch	S. I. Comach
Director, International Programs Branch	R. M. Trites
Deputy Director, International Programs Branch	M. L. Card
Director, Machinery Branch	F. Dugal
Deputy Director, Machinery Branch	J. R. Brisson
Director, Shipbuilding and Heavy Equipment Branch	J. C. Rutledge
Deputy Director, Shipbuilding and Heavy Equipment Branch	J. J. McKennirey
A/Director, Chemicals Branch	D. F. Gray
Director, Clothing and Textiles Branch	A. M. Guerin
Director, Food Products Branch	A. H. Mathieu
Director, Materials Branch	R. D. Hindson
Director, Mechanical Transport Branch	N. B. MacDonald
Director, Wood Products Branch	K. O. Roos
Deputy Director, Wood Products Branch	G. P. O'Keefe

Advisory and Service Branches

Comptroller	G. F. Wevill
Deputy Comptroller	T. E. Brown
Financial Adviser	R. M. Keith
Deputy Financial Adviser	N. R. MacLean
Director, Contracts Authorization Division	J. D. Langley
Director, Emergency Supply Planning Branch	G. E. Woodside
Director, General Services Branch	J. J. Tevlin
Director, Legal Branch	F. F. Waddell
Deputy Director, Legal Branch	C. S. Stevenson
Director, Management Control	A. R. Bailey
Director, Personnel Branch	H. R. Kotlarsky
Director, Management Services Branch	J. M. DesRoches
Director, Regional Purchasing Branch	D. M. Erskine
Director, Traffic Management Branch	G. J. Whyte
Director, Warehousing and Distribution Branch	R. C. D. Laughton
Deputy Director, Cataloguing Branch	C. E. Adams

Canadian Government Printing Bureau

General Manager	C. B. Watt

Appendix C

Distribution of Departmental Staff

as of December 31, 1964

Deputy Minister's	11
Aircraft	175
Cataloguing	7
Chemicals	37
Clothing and Textiles	36
Comptroller's	113
Electrical and Electronics	183
Emergency Supply Planning	62
Financial Adviser's	50
Food Products	7
General Services	345
International Programs	138
Legal	15
Machinery	166
Management Control Group	11
Management Services	27
Materials	8
Mechanical Transport	33
Personnel	112
Quality Assurance	3
Regional Purchasing	253
Shipbuilding and Heavy Equipment	115
Specifications and Standards	5
Traffic Management	8
Warehousing and Distribution	140
Wood Products	43
Grand Total	2,103

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1964

Canadian Arsenals Limited

President	J. R. Brisson
Vice-President	G. W. Hunter

Canadian Commercial Corporation

President	M. H. Lamoureux
Secretary and Legal Adviser	F. F. Waddell
Comptroller	G. F. Wevill

Crown Assets Disposal Corporation

President	Louis Richard
General Manager	D. L. Thompson
Vice-President	G. W. Hunter
Assistant General Manager	J. M. Mackinnon
Secretary and Legal Counsel	R. LaPrairie

Defence Construction (1951) Limited

President and General Manager	A. G. Bland
Legal Counsel	J. D. Jennison
Secretary	N. J. Smith
Treasurer	N. Tokaryk

Polymer Corporation Limited

Chairman of the Board	E. J. Brunning
President and Managing Director	E. R. Rowzee
Vice-President	E. J. Buckler
Vice-President	L. D. Dougan
Vice-President	R. E. Hatch
Vice-President	I. C. Rush
Vice-President	S. Wilk
Treasurer	G. Bracewell
Secretary and Chief Legal Officer	W. J. Dyke

Appendix E

Regional Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1964

Regional Purchasing Offices

In Canada

St. John's, Nfld.	Room 401, Main Post Office Building, Water Street, (P.O. Box 487).
Halifax, N.S.	Room 527, Federal Building, Bedford Row, (P.O. Box 1655).
Saint John, N.B.	Room 408, Sadim Building, Canterbury and Duke Streets.
Quebec, P.Q.	Gare Maritime Champlain, Chemin des Foulons.
Montreal, P.Q.	685 Cathcart Street.
Ottawa, Ont.	953 Somerset Street West.
Toronto, Ont.	Room 1214, Mackenzie Building, 36 Adelaide Street East.
London, Ont.	388 Dundas Street, (P.O. Box 2275—Terminal "A").
Winnipeg, Man.	Room 326 E, 344 Edmonton Street.
Regina, Sask.	Room 302, New Post Office Building, Cornwall and S. Railway Streets.
Calgary, Alta.	Room 725, Public Building, 8th Avenue and 1st Steet East.
Edmonton, Alta.	Room 309, Federal Building, 107th Street and 99th Ave.
Vancouver, B.C.	Harry Stevens Building, 125E, 10th Avenue.
Victoria, B.C.	Room 318, Canada Customs House, 816 Government Street.

Outside Canada

Washington, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station), WASHINGTON 8, D.C., U.S.A.

Sub-Office	MCL DDP Wright-Patterson Air Force Base, OHIO, U.S.A.
LONDON, ENGLAND	Canadian Department of Defence Production, 1 Grosvenor Square, LONDON W. 1, England.
PARIS, FRANCE	Canadian Department of Defence Production, 1 rue Chanez, Paris 16e, France.
KOBLENZ, GERMANY	Canadian Department of Defence Production, 54 KOBLENZ-PFAFFENDORF, Emserstrasse 21, Germany.

Other Offices Outside Canada

WASHINGTON, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station), WASHINGTON 8, D.C., U.S.A.
Sub-Office	MCL DDP Wright-Patterson Air Force Base, OHIO, U.S.A.
LONDON, ENGLAND	Canadian Department of Defence Production, 1 Grosvenor Square, LONDON W 1, England.
AYRSHIRE, SCOTLAND	Canadian Department of Defence Production, c/o Scottish Aviation Limited, Prestwick Airport, Ayrshire, Scotland.
PARIS, FRANCE	Canadian Department of Defence Production, c/o Canadian Embassy, 35, avenue Montaigne, PARIS 8e, France.
NEW YORK, N.Y.	Consul and Assistant Trade Commissioner, Department of Trade and Commerce, c/o Canadian Consulate General, 680 Fifth Avenue, NEW YORK 19, N.Y., U.S.A.
ROME, N.Y.	ROP/DDP Rome Air Materiel Area, Griffiss Air Force Base, ROME, N.Y., U.S.A.
BEDFORD, MASS.	Canadian Department of Defence Production, L.G. Hanscom Field, BEDFORD, Mass., 01731 U.S.A.

PHILADELPHIA, PA.	Canadian Department of Defence Production, c/o U.S. Army Electronics Support Command/DetA ATTN: SELSC/P-CD 225 South 18th Street, PHILADELPHIA, Pa., 19103 U.S.A.
DETROIT, MICH.	Canadian Department of Defence Production, c/o U.S. Army Ordnance District, 1580 East Grand Blvd., DETROIT 11, Mich., U.S.A.
ST. LOUIS, MO.	Canadian Department of Defence Production, AVCOM, P.O. Box 209, Main Office, ST. LOUIS, Mo., 63166, U.S.A.
LOS ANGELES, CALIF.	Canadian Department of Defence Production, c/o Los Angeles Contract Management District, 1206 South Maple Avenue (Room 546), LOS ANGELES 15, Calif., U.S.A.
CHICAGO, ILL.	Canadian Consulate General, 310 South Michigan Avenue, Suite 2000, CHICAGO 4, Ill., U.S.A.
NEW ORLEANS, LA.	Consul and Assistant Trade Commissioner, Department of Trade and Commerce, c/o Canadian Consulate General, Suite 1710, 225 Baronne Street, NEW ORLEANS 12, La., U.S.A.
OFFICE OF DDP REPRESENTATIVE TO THE NORTH ATLANTIC COUNCIL	OTAN-NATO, Place du Maréchal de Lattre de Tassigny, PARIS 16e, France.
DEFENCE PRODUCTION ATTACHÉ	c/o Canadian Embassy, 35 avenue Montaigne, PARIS 8e, France.
DEFENCE PRODUCTION ATTACHÉ CANADIAN REPRESENTATIVE TO THE EUROPEAN ORGANIZATION FOR DIRECTION AND CONTROL F-104G	c/o Canadian Embassy, Zitelmannstrasse 22, BONN, Germany.

Appendix F

Statistics of Defence Contracts and Expenditures

The statistical tables in this Appendix contain information for calendar years 1963 and 1964 on contracting and related spending in connection with the Canadian defence procurement and construction program, foreign government prime defence contracts placed through Canadian Government agencies, and contracts placed on behalf of other Canadian Government Departments and agencies. These statistics measure the value of contracts as they are issued to contractors and suppliers and the value of payments as they are made to them.

The net value of contracts issued, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts. In some cases, therefore, "credit" net values are shown because decreasing amendments to contracts placed in earlier years have exceeded the value of new contracts and increasing amendments issued.

The tables are shown in pairs, with the first "a" containing data on the net value of contracts issued and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1-a and 1-b contain summary statistics relating to all contracts issued by the Department of Defence Production and its associated Crown companies, Defence Construction (1951) Limited and Canadian Commercial Corporation, with the exception of those involving payments out of the Defence Production Revolving Fund. Both contract and expenditure data are broken down by the various sources that requisition and pay for the goods or services involved.

Tables 2-a and 2-b contain statistics related to contracting by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence. Payments against these contracts are made from funds appropriated by Parliament for the Department of National Defence. The figures in these tables are broken down by defence programs (as defined below) and the country in which the prime contractor is located (based on the address to which the contract is sent). The data contained in Tables 2-a and 2-b are similar to those contained in Tables 1-a and 1-b to Tables 4-a and 4-b in previous Annual Reports of the Department.

Tables 3-a and 3-b provide data relating to prime defence contracts placed in Canada by foreign governments through Canadian Government agencies, such as Canadian Commercial Corporation. The Department of Defence Production issues most of the contracts for Canadian Commercial Corporation.

Tables 4-a and 4-b relate to certain activities in support of Canadian defence industry that are financed from Defence Production parliamentary appropriations.

Definitions of the Defence Programs

The general concept involved in this defence program classification is that of relating all procurement, as far as possible, to a readily identifiable military end-item, such as an aircraft, a ship, an electronic device, a gun, a type of ammunition, an item of clothing, etc. Thus a particular program includes, in addition to the end-item, those components or parts that become an integral part of the end-item, as well as associated services such as design and development, installation, maintenance and repair and overhaul.

AIRCRAFT: This program includes complete aircraft and items to be physically incorporated in complete aircraft, such as airframes, engines, propellers, navigational and flight instruments, electrical systems and their components. The repair and overhaul of aircraft is also included. Excluded are accessories such as armament and communication equipment, photographic equipment, training devices and ground support equipment.

ARMAMENT: This program includes weapons such as small arms, guns, howitzers and their components; light, medium and heavy ammunition of all types, including mines, depth charges and torpedoes; rockets and missiles and their launchers; and explosives and certain defence chemicals. Electronic fire controls are not included.

ELECTRONICS: Electronics and communication equipment of all types are in this program, including telephone, telegraph, radio and radar equipment. Underwater sound equipment, fire control equipment and flight and tactics simulators are also included. Development, maintenance, management and transportation services associated with the procurement of electronic and communication equipment are in this program. (This program was formerly identified as the Electronics and Communication Equipment program.)

SHIPS: This program includes destroyer escorts, frigates, minesweepers, aircraft carriers, and other floating equipment, and ship components such as hulls and superstructures, propulsion machinery, boilers, condensers, heating and electrical systems. Reconversion, refit and repair of ships are also included. Armament and electronic gear are excluded.

TANK-AUTOMOTIVE: Included in this program are tanks and vehicles of both armoured and non-armoured types. Cars, trucks and buses and their components, such as tires and tubes, are included. Excluded are armament and electronic equipment.

FUELS AND LUBRICANTS: This program includes petroleum, gas, coal and coke, and their products, principally aviation turbine fuel and gasoline, motor vehicle gasoline, and heating fuels.

CLOTHING AND EQUIPAGE: All items of personal clothing, including footwear, and of personal equipment, such as mess kits and steel helmets, are in this program.

CONSTRUCTION: This program includes all construction contracts for building structures, runways, etc., as well as for consultant services, repairs and maintenance. Most of these contracts are placed by Defence Construction (1951) Limited.

Table 1-a.—Net Value of All Contracts Issued

Sources for which Contracts Issued	1963	1964
	$000	$000
Department of National Defence	522,277	507,158
Department of Defence Production:		
Votes in Support of Defence Industry	11,330	9,565
Foreign Governments:		
United States	96,868	84,557
Britain	1,372	2,018
Federal Republic of Germany	2,693	3,807
Other Governments	34,239	12,035
Canadian External Aid	11,646	13,075
Other Government Departments and Agencies	1,543	35,769
Total	681,968	667,985

Table 1-b.—Expenditures against All Contracts Issued

Sources Paying the Contracts	1963	1964
	$000	$000
Department of National Defence	524,780	534,260
Department of Defence Production:		
Votes in Support of Defence Industry	16,776	10,489
Foreign Governments:		
United States	152,835	138,719
Britain	1,844	1,064
Federal Republic of Germany	6,297	5,081
Other Governments	28,312	13,898
Canadian External Aid	21,079	15,520
Other Government Departments and Agencies	3,325	25,052
Total	755,248	744,083

Table 2-a.—Net Value of Canadian Government Defence Contracts

1964

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	95,930	48,592	11,514	5	9	156,050
Armament	14,603	4,079	2,285	139	128	21,234
Electronics	93,862	1,561	744	311	331	96,809
Ships	21,517	225	15,239	—	—	36,981
Tank-automotive	14,004	12,812	505	135	215	27,671
Fuels and lubricants	42,761	12	256	243	285	43,557
Clothing and equipage	10,715	327	26	2	1	11,071
Construction	30,573	—	—	1,195	1,090	32,858
Other	74,156	3,343	544	1,408	1,476	80,927
Total	398,121	70,951	31,114	3,437	3,535	507,158

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	140,130	26,424	912	10	68	167,545
Armament	11,328	2,490	330	40 cr	13	14,119
Electronics	94,315	11,254	1,677	284	312	107,843
Ships	40,346	576	286	*	—	41,209
Tank-automotive	13,014	49	4,233	91	287	17,674
Fuels and lubricants	46,034	58	119	63	383	46,658
Clothing and equipage	10,660	46	40	6	2	10,754
Construction	31,247	—	—	1,558	424	33,229
Other	79,023	1,223	508	1,399	1,091	83,246
Total	466,097	42,121	8,107	3,371	2,581	522,277

*Less than $500.

Table 2-b.—Expenditures Against Canadian Government Defence Contracts

1964

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	160,935	29,217	1,087	5	10	191,255
Armament	9,657	5,295	786	2,106	128	17,972
Electronics	102,759	9,095	519	311	403	113,086
Ships	35,574	409	197	—	—	36,179
Tank-automotive	12,558	11,363	1,281	135	213	25,550
Fuels and lubricants	25,167	11	122	243	272	25,815
Clothing and equipage	10,188	354	33	2	1	10,578
Construction	33,250	—	—	1,312	589	35,152
Other	73,397	1,932	488	1,408	1,450	78,674
Total	463,485	57,675	4,512	5,522	3,066	534,260

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	159,797	13,070	1,823	10	72	174,772
Armament	14,905	2,498	2,171	4,552	13	24,139
Electronics	91,201	10,780	1,035	284	263	103,564
Ships	51,826	496	378	*	53	52,753
Tank-automotive	9,550	22	851	91	287	10,802
Fuels and lubricants	28,593	12	97	63	386	29,151
Clothing and equipage	11,980	3	65	6	2	12,056
Construction	30,880	—	—	1,319	311	32,510
Other	79,535	2,164	862	1,400	1,072	85,033
Total	478,267	29,046	7,283	7,725	2,458	524,780

*Less than $500.

Table 3-a.—Net Value of Foreign Government Prime Contracts Placed in Canada

1964

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	37,103	*	1,812	6,023	44,938
Armament	3,517	617	—	5,664	9,798
Electronics	32,199	901	1,928	233	35,261
Fuels and lubricants	152	—	—	—	152
Construction	973	—	—	77	1,050
Other	10,612	500	67	38	11,217
Total	84,557	2,018	3,807	12,035	102,417

1963

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	46,706	—	1,394	29,089	77,189
Armament	5,033	766	3	582	6,384
Electronics	33,614	129	1,296	4,056	39,095
Fuels and lubricants	3,327	—	—	—	3,327
Construction	1,151	—	—	—	1,151
Other	7,037	476	*	512	8,026
Total	96,868	1,372	2,693	34,239	135,172

* Less than $500.

Table 3-b.—Expenditures Against Foreign Government Prime Contracts Placed in Canada

1964

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	86,728	—	2,431	10,173	99,332
Armament	5,563	481	—	1,419	7,463
Electronics	36,857	200	2,650	1,973	41,680
Fuels and lubricants	226	—	—	—	226
Construction	1,002	—	—	—	1,002
Other	8,344	383	—	333	9,059
Total	138,719	1,064	5,081	13,898	158,762

1963

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	95,157	*	228	21,905	117,290
Armament	5,572	564	3	593	6,732
Electronics	42,971	754	954	2,669	47,348
Fuels and lubricants	3,702	—	—	—	3,702
Construction	2,050	—	—	—	2,050
Other	3,384	525	5,112	3,146	12,167
Total	152,835	1,844	6,297	28,312	189,289

* Less than $500.

Table 4-a.—Net Value of Contracts to Assist Canadian Defence Industry

Category of Assistance	1963	1964
	$000	$000
Care, maintenance and custody of Crown owned standby defence assets	164	120
Capital assistance	150	104
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	1,753	44 cr
Establishment of qualified sources for the production of component parts and materials	474	494
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing program	8,789	8,891†
Total	11,330	9,565

Table 4-b.—Expenditures Against Contracts to Assist Canadian Defence Industry

Category of Assistance	1963	1964
	$000	$000
Care, maintenance and custody of Crown owned standby defence assets	583	738
Capital assistance	119	127
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	1,890	283
Establishment of qualified sources for the production of component parts and materials	485	406
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing program	13,699	8,935†
Total	16,776	10,489

† The 1964 figures of $8,891,000 and $8,935,000 are for the January to March 31, 1964 period only. Vote 5 was transferred to Department of Industry April 1, 1964. The net value of contracts placed in the 1964 calendar year totalled $35,133,000 while expenditures totalled $20,084,000.

Appendix G

OTTAWA, March 29, 1965.

The Honourable C. M. Drury,
Minister of Industry,
Ottawa.

SIR,

I have examined the accounts and financial statements of the Department of Defence Production for the year ended March 31, 1964.

The Department's revolving fund, established under section 16 of the Defence Production Act, contained an accumulated surplus of $1,255,779 at March 31, 1964. Section 58(5) of the Financial Administration Act provides that when a revolving fund ends the year with a surplus, such surplus shall be transferred from the revolving fund as revenue. In our opinion this surplus should have been transferred in accordance therewith.

In accordance with established governmental practice, the Crown-owned capital assets for which the Department is accountable are carried on the balance sheet at cost, without showing any deduction with respect to depreciation.

I now report that, in my opinion, subject to the foregoing:

(a) proper books of account have been kept by the Department;

(b) the financial statements of the Department

(i) were prepared on a basis consistent with that of the preceding year and are in agreement with the books of account,

(ii) in the case of the balance sheet, give a true and fair view of the state of the Department's affairs as at the end of the financial year, and

(iii) in the cases of the statement of expenditure, statement of revenue and the summary of transactions in surplus arising from trading operations, give a true and fair view of the operations of the Department for the financial year; and

(c) the transactions of the Department that have come under my notice have been within the powers of the Department under the Defence Production Act and any other Act applicable to the Department.

Yours faithfully,

GEO. LONG
for Auditor General.

Exhibit I

Balance Sheet as at March 31, 1964

(with comparative figures as at March 31, 1963)

General Account

ASSETS

		1964	*1963*
Cash		$ 278,962	$ 586,027
Accounts receivable—			
Purchasers of Crown plants and equipment	5,934,497		8,302,746
Other	200,815		59,478
		6,135,312	
Advances—			
Crown agencies	13,000,000		17,000,000
Other	15,774		13,607
		13,015,774	
Investments, at cost—			
Polymer Corporation Limited, capital stock	30,000,000		30,000,000
Township of Toronto, 3% debentures 1964-71	218,193		242,015
Defence Construction (1951) Limited, capital stock	30		30
Canadian Arsenals Limited, capital stock	30		30
		30,218,253	
Crown-owned lands, buildings, machinery and equipment, at cost, including rehabilitation and installation costs			
With contractors	48,728,188		52,327,273
In warehouse	4,697,107		5,296,368
		53,425,295	

LIABILITIES AND GOVERNMENT EQUITY

	1964	*1963*
Accounts payable	$ 249,194	$ 919,260
Sundry liabilities	270,761	578,270
Equity of Government of Canada, Exhibit II	207,352,805	221,542,131

Crown-owned plants, at cost						
Canadian Arsenals Limited	95,216,852		99,611,024			
Other	9,582,312		9,601,063			
		104,799,164				
		$207,872,760	$223,039,661		$207,872,760	$223,039,661

In addition to the assets listed above, the Department has recorded in its books, expenditure in the amount of $188,661,154 for production tooling, dies and jigs, title to which is vested in the Crown.

Revolving Fund

Government of Canada bonds	$ 875,000	$ 475,000	Contractor's security deposits		$ 875,000	$ 475,000
Accounts receivable	7,560,026	9,276,584	Accounts payable		2,035,312	824,618
Progress payments and advances to suppliers	73,512,059	45,067,246	Progress payments from customers		59,813,352	24,083,776
Working capital advances	1,479,000	2,250,000	Equity of Government of Canada—			
Inventories of strategic materials, etc., at cost	9,061,616	8,981,563	Revolving Fund, as provided by Defence Production Act, Section 16 (authorized $100,000,000), net expenditure	27,791,418		39,068,165
			Inventory taken over by Department at inception	716,840		716,840
			Surplus arising from trading operations, Exhibit V	1,255,779		881,994
					29,764,037	
	$92,487,701	$66,050,393			$92,487,701	$66,050,393

I have examined the above Balance Sheet and the related statements and have reported thereon under date of March 29, 1965, to the Minister of Industry.

Approved on behalf of the Department.

G. W. HUNTER
Deputy Minister.

G. F. WEVILL
Comptroller.

GEO. LONG
for Auditor General.

Exhibit II

Summary of transactions in Equity of Government of Canada Account

for the year ended March 31, 1964

Balance at April 1, 1963		$ 221,542,131
Additions:		
Transfer of assets from other departments and Crown agencies	3,433,543	
Assets acquired from appropriations	183,745	
Decrease in accounts payable	670,066	225,829,485
Reductions:		
Transfer of surplus assets to Crown Assets Disposal Corporation	5,761,177	
Decrease in fixed assets in custody of Canadian Arsenals Limited	4,394,173	
Decrease in working capital advance to the Canadian Commercial Corporation	4,000,000	
Receipts from sales, etc., Exhibit IV	2,359,486	
Transfer of assets to other departments and Crown agencies	1,295,270	
Assets written off due to completion of contracts, dismantling, etc.	663,884	
Sundry	2,690	18,476,680
Balance at March 31, 1964		$ 207,352,805

Exhibit III

Statement of Expenditure for the year ended March 31, 1964

(with comparative figures for the year ended March 31, 1963)

		1964	*1963*
Vote 1, Departmental administration			
Salaries	$ 9,554,256		$ 9,145,053
Living allowances	233,916		209,169
Travelling and removal expenses	313,892		288,831
Office stationery, supplies and equipment	337,676		243,244
Telephones and telegrams	230,971		176,191
Professional and special services	140,015		113,164
Postage	51,328		57,392
Freight, expenses and cartage	15,823		12,122
Rental of office accommodation	2,477		3,343
Publication of departmental reports and other material	21,014		1,186
Sundries	22,565		17,011
		$10,923,933	$10,266,706
Vote 5, Care, maintenance and custody of standby defence plants, buildings, machine tools and production tooling		770,094	846,603
Vote 10, Capital assistance			
Capital account			
Equipment	22,677		113,341
Accountable advances to contractors	156,457		63,597
Establishment of production capacity			52,720
		179,134	
Income account			
Establishment of production capacity		928,025	1,335,853
Vote 15, Grants to municipalities in lieu of taxes		187,025	130,012
Vote 20, Establishment of qualified sources for production of component parts and materials			
Capital account	2,000		1,667
Income account	485,342		243,539
		487,342	

		1964	1963
Vote 25, Sustainment of technological capability in Canadian industry		18,392,664	8,537,898
Vote 30, Defence Construction (1951) Limited Administration		2,509,825	3,221,504
Canadian Arsenals Limited—			
Vote 35, Administration and operation		4,257,976	4,200,573
Vote 40, Construction and improvements			7,464
Vote 40, Equipment		268,330	375,290
Statutory—Minister of Defence Production			
Salary	4,765		15,000
Motor car allowance	629		2,000
		5,394	
Statutory—Refund of prior year's rental revenue		36,416	
Total expenditure		$38,946,158	$29,413,773

Exhibit IV

Statement of Revenue for the year ended March 31, 1964

(with comparative figures for the year ended March 31, 1963)

	1964	*1963*
Income Account—		
Sales of surplus Crown assets	$10,413,052	$ 8,543,519
Return on investments	4,095,794	3,652,107
Rentals of buildings and equipment	153,955	182,575
Refunds of previous years' expenditure	11,588	108,652
Miscellaneous	3,918	4,649
	$14,678,307	$12,491,502
Capital Account—		
Sales of plant and equipment by the Department	2,316,442	2,318,771
Repayment of debentures	23,822	23,129
Recoveries of advances and accounts receivable	19,222	9,431
Total per Exhibit II	2,359,486	2,351,331
	$17,037,793	$14,842,833

Exhibit V

Summary of transactions in surplus arising from trading operations (Revolving Fund) for the year ended March 31, 1964

(with comparative figures for the year ended March 31, 1963)

		1964	*1963*
Balance at April 1		$ 881,994	$ 290,271
Additions:			
Sales, less cost of materials sold—			
Aircraft and components, sales	$31,471,861		7,710,679
Aircraft and components, cost of sales	31,471,861		7,710,679
Research and development, sales	4,002,149		1,943,230
Research and development, cost of sales	4,002,149		1,943,230
Munitions and components, sales	2,633,914		(112,769)
Munitions and components, cost of sales	2,633,914		(112,769)
Sonobuoys, sales	1,161,574		748,664
Sonobuoys, cost of sales	1,096,875		703,125
Surplus transferred to accounts payable reserve for price adjustments	64,699		45,539
Shipbuilding components, sales	210,419		63,944
Shipbuilding components, cost of sales	210,419		63,944
Strategic materials, sales	188,296		4,873,877
Strategic materials, cost of sales	175,240		4,470,458
		13,056	403,419
Interest received on sales of aircraft, net		365,471	194,423
		1,260,521	888,113
Reductions:			
Warehousing and other expenses—strategic materials and (in 1962-63) cloth	6,171		7,874
Less: proceeds of sale of warehousing equipment	1,429		1,755
		4,742	6,119
Balance at March 31		$ 1,255,779	$ 881,994